UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Ex parte STEVE ALISTER NIXON

Appeal No. 2005-0484
Application No. 09/888,696



ON BRIEF

Before CAROFF, PAK, and TIMM, Administrative Patent Judges.

CAROFF, Administrative Patent Judge.

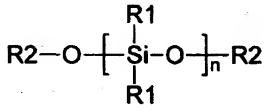
DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1-4 and 9-18, all the claims now pending in appellant's application.

The appealed claims relate to an ambient temperature curing coating composition including, inter alia, a polysiloxane and an alkoxysilyl-functional acrylic polymer. The composition is claimed as comprising more than 70% by weight solids.

Claim 1, which is one of two independent claims, is illustrative of the subject matter encompassed by appellant's claims:

1. Ambient temperature curing coating composition comprising



- a polysiloxane having the formula

wherein each R1 is selected from alkyl, aryl, and alkoxy groups having up to six carbon atoms, reactive glycidoxy groups, and $OSi(OR3)_3$ groups, wherein each R3 independently has the same meaning as R1, each R2 is selected from hydrogen and alkyl and aryl groups having up to six carbon atoms, and wherein n is selected so that the molecular weight of the polysiloxanes is in the range of from 500 to about 2,000, and

- an alkoxysilyl-functional acrylic polymer

- optionally water as curing agent,

wherein said coating composition comprises more than 70% by weight solids.

The sole prior art reference relied upon by the examiner is:

Yamaki et al. (Yamaki) 5,902,851 May 11, 1999

The appellant relies upon the following two references:

Yamamori et al. (Yamamori) 2002/0011177 A1 Jan. 31, 2002

Stoye et al. (Stoye), Resins for Coatings, pp. 28, 29, 33, 34, 285.[1]

All of the appealed claims stand rejected under 35 U.S.C. § 103 for obviousness in view of Yamaki.

The appellant stipulates on page 2 of the brief that all of the rejected claims stand or fall together for purposes of appeal. Accordingly, we shall limit our consideration to claim 1 in reviewing the rejection at issue.

We have carefully reviewed the entire record in light of the opposing positions taken by the appellant and the examiner. Having done so, we conclude that the examiner has established a prima facie case of obviousness which has not been rebutted by the evidence relied upon by the appellant. Accordingly, we shall affirm the examiner's rejection.

As noted by the examiner, and not disputed by the appellant, Yamaki discloses an ambient temperature curing coating

[1]Stoye has been cited for the first time in appellant's reply brief. Presumably, Stoye is a published text, although no publication date has been given by appellant, and none is evident from the copy included in the reply brief.

composition which, like the appellant's claimed composition, includes, inter alia, an alkoxysilyl-functional acrylic polymer (Yamaki component B), and a polysiloxane diol (Yamaki component C).

The basic issue before us is whether it would have been prima facie obvious, within the context of 35 U.S.C. § 103, to formulate a composition of more than 70% by weight solids based upon the teachings of Yamaki.

We agree with the examiner that the Yamaki disclosure does embrace formulations containing a solids content of greater than 70% by weight. In this regard, we note that the Yamaki composition includes five essential components: A, B, C, D, and E (col. 4, l. 22-col. 5, l. 8). Component A is an oligomer solution of an organosilane which contains colloidal silica in dispersion (col. 7, ll. 15-20). The amount of silica in the composition as a whole can be as much as 40% by weight based on the total amount of solids in the composition (col. 12, ll. 61-64).

The appellant refers to the working examples given in Yamaki as an indication of the solids content of components A, B, and D. We agree with the examiner that the Yamaki disclosure is not limited to its working examples. Even so, the working examples

indicate that each of components A, B, and D, as prepared, contain a significant proportion of solids: Component A-36% solids (preparation A-1 and A-2); Component B-40% solids (preparation B-1, B-2, B-3, and B-4); Component D-60% solids (preparation D-1).

Further, components C and E appear to be added to the composition as solids. Component C may constitute as much as 25% of the formulation; whereas component E may constitute as much as 3% (col. 12, ll. 44-53).

Additionally, the Yamaki composition may contain a solid pigment component in amounts as high as approximately 50% by weight of the composition (col. 13, ll. 3-21).

With the foregoing in mind, it can be discerned that the Yamaki disclosure does implicitly encompass formulations having a solids content exceeding 70% by weight.

As explained by the examiner, it would have been prima facie obvious, within the ambit of 35 U.S.C. § 103, to balance the amount of solvent and solids in the Yamaki composition to obtain an optimum formulation especially in view of the recognized need in the art, as conceded by appellant (specification: p. 1, ll. 12-15), to minimize the volatile organic solvent content of coating compositions.

Although the appellant refers to the instant specification (pp. 6-7), and to Yamamori, as teaching particular techniques for minimizing solvent content and achieving a high solids content, appellant has failed to establish that an ordinary artisan would be unable to achieve similar results, within the bounds of the Yamaki disclosure, by exercising routine skill.

The "known" relationship between a composition's solids content and its viscosity, as elucidated by Stoye, is one of many known factors which would presumably be considered by a person of ordinary skill in the art in balancing solvent content against solids content. This factor would evidently impose a limit on the amount of solids which can be tolerated. As we have already discussed, an opposing factor, also recognized in the art, is the need to minimize the volatile organic solvent content of the composition.

For all of the foregoing reasons, the decision of the examiner is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED

MARC L. CAROFF
Administrative Patent Judge

CHUNG K. PAK
Administrative Patent Judge

CATHERINE TIMM
Administrative Patent Judge

BOARD OF PATENT
APPEALS
AND
INTERFERENCES

MLC:hh

Appeal No. 2005-0484
Application No. 09/888,696

DAVID H. VICKREY
AKZO NOBEL, INC.
7 LIVINGSTONE AVE.
DOBBS FERRY, NY 10522-3408